



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,841	04/28/2006	Jun Fujita	124689	4281

25944 7590 05/23/2007  
OLIFF & BERRIDGE, PLC  
P.O. BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER
----------

CHIMIAK, EMILY ANN

ART UNIT	PAPER NUMBER
----------	--------------

1733

MAIL DATE	DELIVERY MODE
-----------	---------------

05/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/541,841	Applicant(s) FUJITA ET AL.	
	Examiner Emily Chimiak	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04/20/2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Takashi et al. (JP A 2000-007455).

Takashi et al. discloses collectively joining honeycomb filter wafers with an average pore diameter of 10 micrometers and through tubes 2 separated by walls 3 (bundling a plurality of porous honeycomb segments with numerous circulation holes separated by partition walls and penetrated in the axial direction) after joining all of the honeycomb filter wafers and incorporating adhesive layers 8 by applying thrust (refer the last diagram in Drawing 4), i.e. performing main pressurization on the whole through the outermost layer after stacking a predetermined number of pieces (page 2 [0018], page 3 [0023], page 7 [0057] and [0058] and page 10 [0082]).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1733

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 2 and 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Takashi et al. as applied to claim 1 above, and further in view of Cone et al. (US 4115178).

As to Claim 2, Takashi et al. discloses that it is favorable to have two stages using different degrees of vibration (page 10 [0083]). However, Takashi et al. does not disclose a preliminary pressurization stage at the time of stacking that is weaker than a main pressurization stage.

Cone et al. discloses prepressing superimposed wood veneer layers on substrate laminae before laminating the final assembly under a stronger pressure (a preliminary pressurization by weaker pressure than the main pressurization) to allow cold press foamed adhesive at the interface to achieve intimate contact with the veneer surfaces before the glue loses its fluidity (col. 1 lines 13-20, col. 3 lines 65-68, col. 4 lines 1-14, col.1-33). It is noted that although Takashi et al. does not use a foamed glue, the teaching of Cone et al. can apply to any glue that begins to solidify during the assembly of the laminate.

It would have been obvious to one of ordinary skill in the art at the time of invention to include a prepressing step of lesser magnitude than the pressure required to produce the final

Art Unit: 1733

laminate assembly as taught by Cone et al. in the ceramic structure joining method of Takashi et al. in order to spread the paste across the irregular surface of the ceramics before the paste begins to lose fluidity.

As to Claim 3, Takashi et al. does not explicitly disclose a preliminary pressurization of less than  $0.5 \text{ kgf/cm}^2$ .

However, in one illustrative example, Cone et al. discloses prepressing at a pressure that is 16% of the laminating pressure (col. 4 lines 7-14 and col. 6 lines 44-50). It is noted that for one embodiment of Takashi et al. to follow the ratio of prepressing to laminating pressure ratio disclosed in Cone et al., the preliminary pressurization is 16% of  $2 \text{ kgf/cm}^2$ , i.e. less than or equal to  $0.5 \text{ kgf/cm}^2$  (page 7 [0057]).

It would have been obvious to one of ordinary skill in the art at the time of invention to use a pressure of less than  $0.5 \text{ kgf/cm}^2$  for the preliminary pressurization of Takashi et al. in order to allow intimate contact of the adhesive with the irregularities of the ceramic surface.

### ***Response to Arguments***

6. Applicant's arguments filed 04/20/07 have been fully considered but they are not persuasive. As to the argument regarding main pressurization, Takashi discloses the bonding of porous honeycomb segments performed by main pressurization on the whole through the porous honeycomb segments located on an outermost layer after stacking a predetermined number of pieces in (Takashi [0082]). Specifically, [0082] of Takashi recites the following:

For example, it is also possible to join collectively, after joining or combining all the honeycomb filter wafers 1 beforehand.

Art Unit: 1733

Applicant's specification page 3 line 22 describes the limitations of an embodiment disclosed by Takashi that was not relied on.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emily Chimiak whose telephone number is (571)272-6486. The examiner can normally be reached on Monday-Friday 8:30-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)272-6486. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1733

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

42

EAC



**RICHARD CRISPINO**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1700**